

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims**

1. (Currently Amended) A method for data synchronization, comprising:  
determining a first identifier for a portion of data at a first source, wherein a unique identifier is associated with each portion of data at the first source;  
determining a second identifier for a portion of corresponding data at a second source, wherein a unique identifier is associated with each portion of data at the second source;  
comparing the first and second identifiers; and  
when the first and second identifiers do not match, replacing the portion of corresponding data at the second source in a storage device with the portion of data at the first source.
2. (Original) The method of claim 1, further comprising:  
when the first and second identifiers do match, determining that the portion of data at the first source and the portion of corresponding data at the second source are identical.
3. (Original) The method of claim 1, wherein the first and second identifiers comprise hash keys.
4. (Original) The method of claim 3, further comprising:  
generating the hash keys using a single hash key function.
5. (Original) The method of claim 3, further comprising:  
generating the hash keys using multiple hash key functions.
6. (Original) The method of claim 1, further comprising:  
generating the first identifier by performing a first function on the portion of data at the first source; and

generating the second identifier by performing the first function on the portion of corresponding data at the second source.

7. (Original) The method of claim 1, wherein determining the first identifier further comprises:

generating a first value by performing a first function on the portion of data at the first source;

generating a second value by performing a second function on the portion of data at the first source; and

generating the first identifier by combining the first value and the second value.

8. (Original) The method of claim 7, wherein determining the second identifier further comprises:

generating a third value by performing the first function on the portion of corresponding data at the second source;

generating a fourth value by performing the second function on the portion of corresponding data at the second source; and

generating the second identifier by combining the third value and the fourth value.

9. (Original) The method of claim 1, wherein determining the first identifier further comprises:

generating a first value by performing a first function on the portion of data at the first source; and

generating the first identifier by performing a second function on the first value.

10. (Original) The method of claim 9, wherein determining the second identifier further comprises:

generating a second value by performing the first function on the portion of corresponding data at the second source; and

generating the second identifier by performing the second function on the second value.

11. (Original) The method of claim 1, wherein the first identifier for the portion of data at the first source is determined when the portion of data at the first source is updated and the second identifier for the portion of corresponding data at the second source is determined when the portion of corresponding data at the second source is updated.

12. (Original) The method of claim 1, wherein the first identifier and the second identifier are determined when a determination is made that it is time to synchronize data at the first source and the second source.

13. (Original) The method of claim 1, wherein the first identifier and the second identifier are determined periodically.

14. (Currently Amended) An article of manufacture comprising one of hardware logic and a computer readable medium for data synchronization, wherein the article of manufacture is capable of causing operations to be performed, the operations comprising:

determining a first identifier for a portion of data at a first source, wherein a unique identifier is associated with each portion of data at the first source;

determining a second identifier for a portion of corresponding data at a second source, wherein a unique identifier is associated with each portion of data at the second source;

comparing the first and second identifiers; and

when the first and second identifiers do not match, replacing the portion of corresponding data at the second source in a storage device with the portion of data at the first source.

15. (Original) The article of manufacture of claim 14, wherein the operations further comprise:

when the first and second identifiers do match, determining that the portion of data at the first source and the portion of corresponding data at the second source are identical.

16. (Original) The article of manufacture of claim 14, wherein the first and second identifiers comprise hash keys.

17. (Original) The article of manufacture of claim 16, wherein the operations further comprise:

generating the hash keys using a single hash key function.

18. (Original) The article of manufacture of claim 16, wherein the operations further comprise:

generating the hash keys using multiple hash key functions.

19. (Original) The article of manufacture of claim 14, wherein the operations further comprise:

generating the first identifier by performing a first function on the portion of data at the first source; and

generating the second identifier by performing the first function on the portion of corresponding data at the second source.

20. (Original) The article of manufacture of claim 14, wherein the operation for determining the first identifier further comprises:

generating a first value by performing a first function on the portion of data at the first source;

generating a second value by performing a second function on the portion of data at the first source; and

generating the first identifier by combining the first value and the second value.

21. (Original) The article of manufacture of claim 20, wherein the operation for determining the second identifier further comprises:

generating a third value by performing the first function on the portion of corresponding data at the second source;

generating a fourth value by performing the second function on the portion of corresponding data at the second source; and

generating the second identifier by combining the third value and the fourth value.

22. (Original) The article of manufacture of claim 14, wherein the operation for determining the first identifier further comprises:  
generating a first value by performing a first function on the portion of data at the first source; and  
generating the first identifier by performing a second function on the first value.

23. (Original) The article of manufacture of claim 22, wherein the operation for determining the second identifier further comprises:  
generating a second value by performing the first function on the portion of corresponding data at the second source; and  
generating the second identifier by performing the second function on the second value.

24. (Original) The article of manufacture of claim 14, wherein the first identifier for the portion of data at the first source is determined when the portion of data at the first source is updated and the second identifier for the portion of corresponding data at the second source is determined when the portion of corresponding data at the second source is updated.

25. (Original) The article of manufacture of claim 14, wherein the first identifier and the second identifier are determined when a determination is made that it is time to synchronize data at the first source and the second source.

26. (Original) The article of manufacture of claim 14, wherein the first identifier and the second identifier are determined periodically.

27. (Currently Amended) A system for data synchronization, comprising:  
means for determining a first identifier for a portion of data at a first source, wherein a unique identifier is associated with each portion of data at the first source;  
means for determining a second identifier for a portion of corresponding data at a second source, wherein a unique identifier is associated with each portion of data at the second source;  
means for comparing the first and second identifiers; and

means for, when the first and second identifiers do not match, replacing the portion of corresponding data at the second source in a storage device with the portion of data at the first source.

28. (Original) The system of claim 27, further comprising:

means for, when the first and second identifiers do match, determining that the portion of data at the first source and the portion of corresponding data at the second source match.

29. (Original) The system of claim 27, wherein the first and second identifiers comprise hash keys.

30. (Original) The system of claim 29, further comprising:

means for generating the hash keys using a single hash key function.

31. (Original) The system of claim 29, further comprising:

means for generating the hash keys using multiple hash key functions.

32. (Original) The system of claim 27, further comprising:

means for generating the first identifier by performing a first function on the portion of data at the first source; and

means for generating the second identifier by performing the first function on the portion of corresponding data at the second source.

33. (Original) The system of claim 27, wherein determining the first identifier further comprises:

means for generating a first value by performing a first function on the portion of data at the first source;

means for generating a second value by performing a second function on the portion of data at the first source; and

means for generating the first identifier by combining the first value and the second value.

34. (Original) The system of claim 33, wherein determining the second identifier further comprises:

means for generating a third value by performing the first function on the portion of corresponding data at the second source;

means for generating a fourth value by performing the second function on the portion of corresponding data at the second source; and

means for generating the second identifier by combining the third value and the fourth value.

35. (Original) The system of claim 27, wherein determining the first identifier further comprises:

means for generating a first value by performing a first function on the portion of data at the first source; and

means for generating the first identifier by performing a second function on the first value.

36. (Original) The system of claim 35, wherein determining the second identifier further comprises:

means for generating a second value by performing the first function on the portion of corresponding data at the second source; and

means for generating the second identifier by performing the second function on the second value.

37. (Original) The system of claim 27, wherein the first identifier for the portion of data at the first source is determined when the portion of data at the first source is updated and the second identifier for the portion of corresponding data at the second source is determined when the portion of corresponding data at the second source is updated.

38. (Original) The system of claim 27, wherein the first identifier and the second identifier are determined when a determination is made that it is time to synchronize data at the first source and the second source.

39. (Original) The system of claim 27, wherein the first identifier and the second identifier are determined periodically.